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United States  
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Pacific  
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Tahoe  
National  
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Downieville  
Ranger  
District

# Pendola Fire Restoration

## Record of Decision Final Environmental Impact Statement

### Downieville Ranger District



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# RECORD OF DECISION

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**RECORD OF DECISION  
for  
PENDOLA FIRE RESTORATION PROJECT  
FINAL ENVIRONMENTAL IMPACT STATEMENT**

**Tahoe National Forest, Downieville Ranger District  
USDA, Forest Service**

**Yuba County, California**

## **I. INTRODUCTION**

The Final Environmental Impact Statement (FEIS) documents the results of the environmental analysis of alternative management strategies for the area burned in the Pendola Fire on National Forest System lands within the Tahoe National Forest. I have studied the FEIS and reviewed related material, including responses to the Draft Environmental Impact Statement (DEIS) published in February 2000. My decision is based upon these items and this Record of Decision (ROD) documents my reasons for adopting Alternative D, the Preferred Alternative as presented in the FEIS. Alternative D in the DEIS was modified in the FEIS to address resource concerns, additional knowledge, and public input, as described in Section III of this ROD on page 4. The FEIS is available for review at the Tahoe National Forest Supervisor's Office and the Downieville Ranger District Office.

### **A. Background**

In October of 1999, the Pendola Analysis Area sustained an intense wildfire. Before being controlled, the fire had consumed over 4565 acres of land on the northeast side of Bullards Bar Reservoir, with approximately 2600 of these acres being public lands managed by the Tahoe National Forest. The area analyzed in this FEIS includes those 2600 acres burned on the Tahoe, as well as the private lands and other adjacent land as needed for planning and analysis of effects.

The Pendola Fire Restoration Project is in the northwestern portion of the Tahoe National Forest on the Downieville Ranger District. The project area lies adjacent to and just north of Bullards Bar Reservoir, and west of the town of Camptonville. The project area is located in Yuba County, California, and can be accessed by Highway 49 and the Pendola, Baker Ranch, and Garden Valley roads.

## **B. Proposed Action**

The proposed action is to harvest dead and dying trees that were damaged by the Pendola Fire, reforest conifer plantations and other areas lacking a suitable seed source and release where needed, reduce fuel loadings by treating logging slash, reduce fuel loadings on the Garden Point peninsula, along selected road sections, and in the eagle breeding territory, improve wildlife habitat by creating cover piles and log structures, and control the spread of non-native plants by clipping, pulling, or burning.

## **C. Purpose and Need for Action**

The Tahoe National Forest is required to provide for multiple use of renewable resources using an ecosystem management approach in accordance with the requirements of the National Forest Management Act of 1976 and its implementing regulations.

Accordingly, the Tahoe National Forest Land and Resource Management Plan (Forest Plan) was developed to direct the management of the Forest. The Forest Plan establishes goals and objectives for multiple use of renewable resources without impairment of the land's productivity. The Forest Plan provides for a mix of activities that allow use and protection of resources while addressing local, regional, and national interests.

In the Pendola Fire, approximately 75 percent of National Forest System lands burned with high to moderate fire intensity (effects to vegetation), leaving numerous skeletons of dead trees and shrubs across the landscape. Moderate intensity is defined as approximately 40-90 percent mortality overall; high intensity is anything over 90 percent. Over the next several years, many of these skeletons will fall down, creating heavy fuel build-up over much of the burned area. As young trees and shrubs begin to grow up through this accumulated material, the fire hazard will become extreme. If left untreated, it is highly likely the area will burn intensely again before the surviving trees reach maturity. Late-seral wildlife habitat has been severely degraded. The loss of standing large trees and future timber potential could affect the economy and the wildlife resources of the local area for years to come. Visual quality and dispersed recreation sites have been compromised.

The purpose and need of this project is to speed the environmental recovery of the Pendola Fire area and recover economic values. This includes:

- Capture the economic value of potential forest products by salvage logging merchantable dead and dying trees before those values are lessened to a point at which it is no longer viable to commercially harvest, while meeting other resource objectives and the objectives within the Forest Plan.
- Restore the natural appearing forested landscape as seen from the reservoir by accelerating the reestablishment of the natural mix of conifer species on the burned-over slopes and providing forest resources for the future while leaving the trees that are expected to survive. Accomplish this by planting a mix of conifer species that would naturally occur (areas heavy to hardwoods or areas with a good

seed source may not be planted); removing competing vegetation and/or woody material from some areas before planting to help ensure the establishment and survival of seedlings; and removing competing vegetation from around the planted seedlings to ensure their survival.

- Protect and improve altered wildlife habitat. Accomplish this by accelerating the recovery of forested habitat for a variety of species by planting conifers in selected areas; retaining important habitat components such as dead-standing trees and down logs; preventing accelerated displacement of native plants by controlling non-native invasive plants; improving cover for birds, small mammals, reptiles and amphibians by constructing cover piles; limiting the season of activities to reduce disturbances to endangered, threatened, and sensitive species; reducing long-term fire effects by reducing the fuel loading; and protecting riparian zones with a buffer where no timber harvest occurs.
- Accelerate the recovery of bald eagle nesting habitat by replanting the area with conifers. This will help to re-establish a multi-layered forest with large trees sooner, and to provide nesting habitat.
- Protect and improve watersheds by minimizing further soil loss and by protecting water quality through accelerating the replacement of effective soil cover and establishing streamside management zones (SMZ) to protect riparian and aquatic resources. The following measures will be implemented: distribute logging slash throughout all harvest areas to accelerate the development of effective ground cover and minimize soil erosion; establish SMZs that prohibit ground-based equipment and leave a no-harvest zone along all perennial and intermittent streams; limit ground-based equipment to slopes less than 25 percent and use aerial harvest systems on slopes greater than 25 percent; reduce compaction by widely spacing skid trails; place certified weed-free rice straw mulch and straw bales in critical areas to control accelerated erosion; and reduce compacted areas on landings, temporary roads, and skid trails by deep tilling. A wet weather logging agreement will be used to control harvest and post-harvest operations during periods of precipitation.
- Reduce existing excessive fuel loading of the burn area to acceptable levels through various fuels removal and vegetative control methods by logging, lopping and scattering some slash, piling and burning some slash, and removing some hardwoods. This will help to lessen the probability for, and intensity of, another catastrophic wildfire in the same area. Additionally, this will establish safer firefighter conditions in those strategic areas for the future.
- Restore safe recreational opportunities along one of the most heavily used and popular sections of the shoreline of Bullards Bar Reservoir by removing trees that pose a safety hazard to recreationists using the areas, while meeting other resource objectives.

## II. PUBLIC INVOLVEMENT

The Forest Service began seeking comments on the restoration of resources lost or damaged in October of 1999. During the fire, information was shared with the community and the media, and meetings were held with local residents, government agencies, and the news media.

On December 14, 1999 a letter introducing the proposed project was mailed to 126 potentially interested individuals. **The Union** of Grass Valley-Nevada City on December 20, 1999, carried an article on the fire, our planning efforts, and the upcoming public meeting. This open house occurred on January 6, 2000, with six people attending. In addition, the Forest has received 35 inquiries from people interested in the project to date.

The **Federal Register** published notice of the Forest Service's intent to prepare an Environmental Impact Statement on December 21, 1999. The Forest received one comment from that Notice. In January of 2000, the Pendola project first appeared in the Tahoe's quarterly schedule of proposed actions. This report was mailed to over 275 individuals, agencies, and organizations.

The DEIS was mailed on March 18, 2000, to 41 individuals and agencies. Ten comments were received on the DEIS and considered, addressed, and incorporated into the FEIS. Please see Appendix I in the FEIS for these comments and our responses. As a result of public comment and less than expected over-winter tree mortality, the Preferred Alternative in the DEIS, Alternative D has been subsequently modified in the FEIS to treat fewer acres north of the Baker Ranch Road. In addition, since the DEIS was released, the bald eagles have chosen a replacement nest site; thus the Preferred Alternative was modified to provide protection to the new nest site.

In addition, numerous corrections and clarifications were incorporated, utilizing internal and external input. Other comments were answered by citing the sources, reasons, and authorities that support the agency's position.

All comments internally and externally were considered in the final decision-making process. Throughout the process described above, individuals have either written or called members of the interdisciplinary team (IDT) or myself with comments or questions. These questions have been answered and the comments considered.

## III. THE DECISION

My decision is to adopt the Preferred Alternative (Alternative D) as presented in the FEIS, and described in this ROD, as the management approach to restore National Forest System lands within the Pendola Fire area on the Tahoe National Forest. My selection of the Preferred Alternative considers the comments received on the DEIS. The Preferred Alternative and the non-selected alternatives are analyzed in the Pendola Fire

Restoration FEIS. In making this decision, I intend to implement all of the management requirements and mitigation measures identified for Alternative D in the FEIS. See Appendices H and K for Mitigation Measures and Monitoring Requirements.

Most activities will be accomplished within five years of the signing of this ROD, although some may take longer to complete.

Sale purpose codes identified for the sale or disposal of timber and related products for this project are considered to be 100 percent Forest Stewardship (FS). The FS portion is comprised of 80 percent Forest and Ecosystem Health (code 10), 10 percent Recreation/Visual/Cultural Resource Enhancement (code 20), and 10 percent Wildlife Habitat Management (code 30).

#### **A. Summary of the Key Activities of the Decision**

Activities associated with the Preferred Alternative are specifically described in the FEIS in Sections 2.5, 2.6, 2.61, 2.64, and 2.65.

I have modified the Preferred Alternative between the DEIS and the FEIS in response to several factors, including public input, IDT concerns, and new information. The most significant change is that the bald eagle pair chose a new nesting location away from their traditional nest site. A great deal of time was spent monitoring the eagles on the reservoir over the winter. This new information necessitated a change in the location of the area with a limited operating season.

In addition, because of public comments, and refined site-specific data on the extent of tree mortality, I have reduced the number of proposed harvested acres between issuing the DEIS and this FEIS. The public raised several concerns expressing that we not work north of Baker Ranch Road, and although we did not completely eliminate the work there, the amount of work proposed in the modified Alternative D is greatly reduced. Unit H-26 was dropped, and Units H-27 and T-10 were greatly reduced in size. This reduction will reduce cumulative watershed effects. Some units had boundary refinements as further site-specific information was developed after the DEIS regarding the amount and degree of tree mortality. South of Baker Ranch Road, units were reconfigured both due to change in the amount of tree mortality and because the eagles relocated to a new nest site.

##### **1. Harvest 1493 Acres of Dead and Dying Trees**

Harvest all dead and dying trees down to 10" diameter at breast height (DBH) on tractor ground or 12" DBH on helicopter ground. Nineteen percent of the area is harvested by tractor, 81 percent by helicopter. Exclude ground-based equipment (except at designated crossings) within 50 feet of ephemeral streams, within 150 feet of intermittent, within 300 feet of perennials, and within 165 feet of the high water mark of the reservoir. No harvesting will occur within 50 feet of either perennial or intermittent stream edges. Observe limited operating seasons, and protect sensitive plant and heritage resource sites

by avoidance. Construct four landings. Leave 5 to 10 snags per acre on average (See Appendix J), in a variety of sizes and attributes, across the landscape.

Grapple pile all slash in tractor-harvested units where needed, and lop and scatter all slash in helicopter-harvested units where needed.

Remove all hazard trees along roads open to the public (including live hazards) according to established guidelines (Appendix B).

All Forest Service roads used for timber harvest will be returned to pre-haul conditions.

## **2. Reforestation**

Reforest burned conifer plantations and other areas lacking a suitable seed source, and release by hand or mechanically where needed.

## **3. Reduce Fuels Loadings**

Reduce fuel loadings on the Garden Point peninsula, within one to three years following harvest activities, felling a majority of the unmerchantable, fire-killed hardwoods and conifers less than 15 inches DBH. The resulting debris will be piled and burned. No felling or piling will be conducted within the identified perennial and intermittent SMZs or the 165-foot buffer around the reservoir. Debris within the tractor-harvest units will be grapple piled or masticated. Outside tractor-harvest units, woody debris will be hand piled.

To reduce fuel loadings along selected road sections, (see Fuels Treatment Map) all remaining dead and dying trees within designated areas will be felled. Woody debris will be piled and burned. Debris less than 3 inches at large-end diameter and 10 feet in length will not be piled.

In the eagle-breeding territory, after the harvest, conduct fuels treatment work identical to the Garden Point peninsula work, proposed above.

All fuel treatment work will observe limited operating seasons and protect all sensitive plant and heritage resource sites.

## **4. Improve Wildlife Habitat**

Use logging slash and small diameter trees to create cover piles and log structures for wildlife. Clip, pull, or burn non-native plants.

## **B. Permits, Licenses, Authorizations, and Grants Required for Implementation**

The following permits or concurrence will be needed or sought to be acquired before work commences:

- Yuba County Road Use Permit
- Other County Road Use Permits as appropriate for areas outside Yuba County
- Feather River Air Quality Management District Burn Permit
- US Forest Service Road Use Permit for any winter haul
- US Forest Service Overload Permit for vehicles that off-track more than five feet
- US Fish and Wildlife Service (USFWS) Letter of Concurrence

## **IV. ALTERNATIVES CONSIDERED**

Several alternatives were considered but eliminated from detailed study. An herbicide-use alternative for eventual conifer release was considered, but dropped because the Decision Maker wanted to try other approaches first. A skyline cable-yarding alternative was considered but dropped, because 3.5 miles of new roads would have been needed. The original scoping letter alternative was dropped because we received more information from USFWS on requirements for bald eagles, and more resource data became available. An alternative was considered that worked to provide maximum watershed protection without commercial harvest, but the cost exceeded \$500,000 and the Tahoe does not receive that amount of funding in watershed restoration. The Downieville Ranger District's watershed improvement allocation over the last few years has ranged between zero to \$10,000 annually. Similarly, the fuels treatment alternative was not feasible at a cost of \$15,000,000. The maximum timber utilization alternative, which followed Forest Plan Standards and Guidelines with an estimated 14 million board feet, did not consider the latest scientific information, and was therefore not analyzed in detail. See FEIS, Section 2.4 for further discussion.

Four alternatives were fully developed for consideration in this analysis. The alternatives were formulated by the IDT using an issue-driven process designed to address concerns raised internally and by the public while responding to the need for action. The public review of the DEIS helped focus on the major issues. As a result, the IDT reevaluated and modified the Preferred Alternative in the DEIS to develop the Preferred Alternative in the FEIS.

### **A. Alternatives Considered in Detail**

**Alternative A** is the No Action Alternative. None of the activities proposed would be implemented. The condition of the forest would continue in its current condition and trend. This alternative would defer resource management objectives aimed at realizing economic values of the dead and dying trees, accelerating conifer reestablishment, reducing overall fuels, and protecting or improving watersheds and wildlife habitat.

Public safety issues would only be addressed by closing portions of the shoreline adjacent to a popular and heavily used recreation area.

### **Alternative B**

This alternative was developed in part from issues raised during scoping. It proposes to do no harvesting, planting, or fuels reduction treatments north of the Baker Ranch Road or west of the private property surrounding Baker Ranch, other than hazard tree removal along roads and the reservoir shoreline; see Issue 7 in Chapter 2 in the FEIS. This area of the fire burned less intensely at low levels, and more closely resembles the burn patterns that occurred in pre-settlement times. This alternative includes the most restrictive SMZ requirements for logging in streamside areas and within bald eagle habitat, and reflects public concerns. It proposes harvesting fewer areas of dead and dying trees, fewer acres for fuels treatments, and fewer reforestation acres than Alternatives C and D. It also proposes to close approximately  $\frac{1}{4}$  mile of shoreline to recreationists to allow for the retention of a clump of bald eagle perch trees, responding to Issues 4 and 2 in the FEIS. Hazard trees would be removed along the majority of the Bullards Bar Reservoir shoreline to manage toward a safe recreation experience. This alternative is consistent with the Forest Land and Resource Management Plan (36 CFR 219.10c).

### **Alternative C**

This alternative was developed to address Issues 1 and 2 regarding SMZ width requirements and fire-killed and eagle perch trees along the reservoir. Additionally, it addresses fuels concerns raised internally and externally. This alternative was developed to maintain critical elements for bald eagles, while salvaging the dead and dying trees throughout most of the burn, including a portion of the area north of Baker Ranch Road. This alternative includes less restrictive SMZ requirements for logging in streamside areas. It proposes additional areas for fuels treatments, and replanting all fire-killed plantations. As in Alternative B, this alternative also proposes to close approximately  $\frac{1}{4}$  mile of shoreline to recreationists to allow for the retention of bald eagle perch trees. Hazard trees would be removed along the majority of the Bullards Bar Reservoir shoreline to manage toward a safe recreation experience. This alternative also addresses Issue 3 to a greater extent than Alternative B. This alternative is consistent with the Forest Land and Resource Management Plan (36 CFR 219.10c).

### **Alternative D**

The Preferred Alternative in the DEIS was modified as a result of public comments and additional analysis to become the Preferred Alternative in the FEIS. This alternative includes some harvesting north of Baker Ranch Road, though much less than in the DEIS, to better respond to Issues 3 and 8. This alternative includes the same SMZ requirements as Alternative C. It proposes additional areas for fuels treatments, and replanting all fire-killed plantations. It was developed to provide for additional salvage logging of dead and dying trees and to reduce overall fuel loadings in strategic areas, by removing additional trees within a portion of the bald eagle breeding territory and along

Garden Valley Road. Effects to eagles and other resources are mitigated. All hazard trees are proposed for removal along the shoreline, allowing for all of the shoreline to remain open to the public, where Yuba County Water Agency administratively manages for closures. This alternative is most responsive to Issue 2. This alternative maximizes recreation opportunities and manages for a safe and desirable recreation experience along the Bullards Bar Reservoir shoreline. This alternative is consistent with the Forest Land and Resource Management Plan (36 CFR 219.10c).

## **B. The Environmentally Preferable Alternative**

All of the alternatives provide protection to the environment afforded by their design, management requirements, and built-in mitigations. However, I judge Alternative B to be environmentally preferable; the least amount of human-caused change to the biological and physical environment would occur while still allowing for some harvest of fire-killed trees and subsequent fuels reduction. It provides more short-term protection to the streamside management zones (SMZs) through avoidance (no harvest) of larger areas, with 150 feet of perennial and 75 feet of intermittent stream channels. In Alternative B, no harvest would be done north of the Baker Ranch Road, where the fire burned less intensely. Alternative B also closes approximately  $\frac{1}{4}$  mile of shoreline for eagle habitat protection. Alternative B leaves hazard trees along the reservoir's 165-foot buffer, if the trees appear to be characteristic eagle perch trees. Alternative B also leaves 5-10 snags per acre on average across the landscape, leaving the largest conifers for snags, whereas the other alternatives provide 5-10 snags with a variety of sizes and attributes. The eagle mitigations in Alternative B have priority over public safety and access by closing areas.

The primary reason for not selecting Alternative B is the need to accelerate the recovery of the burned area. Although B is environmentally preferable for the short term, I believe over the long term there are more benefits realized by selecting Alternative D. I believe that the additional timber salvage opportunities and fuels reduction included in the Preferred Alternative can be implemented while protecting other environmental values. For example, in Alternative D, SMZ restrictions were modified to allow harvest by helicopter only in the outer reaches, while still prohibiting all activity in the inner reaches. Since the concerns for salvage harvesting in the SMZs are compaction and the lack of woody material, I am confident that by utilizing helicopter logging, there will be little compaction, and the amount of material left will provide ample ground cover. If we do not remove excess fuels in the SMZs through timber harvest at this time, we will probably need to enter the area in the future to reduce excess fuels, necessitating using limited watershed or fuels dollars. Historically, funding allocations for watershed restoration or fuels reduction have been minimal.

In addition, I weighed the need to reduce fuels north of the Baker Ranch Road, and I believe that reducing the fuel loadings now through a commercial sale would be beneficial compared to the risk of a future, intense fire. Since the area to be harvested north of Baker Ranch Road has been reduced from the DEIS to FEIS to areas of intense burn only, I feel that this is a reasonable and proactive approach with little risk.

The District also would like to begin reforestation activities in the plantations that burned north of Baker Ranch Road. The timeframe for restoration would be lengthened considerably if natural processes were left to accomplish the reforestation process. Because brush grows so well in this area, planting and subsequent release treatments will give the conifer seedlings a head start.

The Preferred Alternative has a greater benefit/cost ratio, positive present net worth, and provides more timber-related jobs and tax revenue than Alternative B.

## **V. RATIONALE FOR THE DECISION**

This section describes the basis for my selection of Alternative D, as modified. The factors I considered were derived from the issues and concerns identified through the initial scoping and planning process, as well as from public comments on the DEIS. I am satisfied that the FEIS explored a reasonable range of alternatives and disclosed the direct, indirect, and cumulative environmental effects. In addition, these alternatives are consistent with the Forest Plan.

No single factor determined my decision. Rather, using current scientific information and professional judgment and experience, many factors were considered and weighed in making the decision. Factors I considered included protection of the basic resources, primarily soil and water, public desires, monetary and non-monetary costs and benefits, land capability, and input from other agencies and organizations. Alternative D, in my judgment, best meets the overall project goal of implementing Forest Plan direction by salvaging burned timber and providing commodities for human needs while minimizing the risk of future damage. This alternative strikes the best balance between watershed, revegetation, wildlife values, timber salvage and fire protection.

### **A. Response to Major Issues**

This ROD reflects many helpful comments received from agencies, organizations, and the public on the DEIS. Discussed below are more specific responses and further rationale for my decision. The public comments on the DEIS and the Forest Service responses to those comments can be found in Appendix I of the FEIS. Issues that did not drive alternative formulation were addressed through project design, incorporated as mitigation measures, or were used to analyze environmental effects; see FEIS, Chapter 2.3.

**Issue 1:** Is the no-harvest zone width within SMZs in excess of what is needed to protect the identified resources there?

DEIS: Alternative B had a wider no-harvest zone than did Alternatives C and D. All alternatives protect perennial streams with a 300-foot-wide SMZ and intermittent streams

with a 150-foot-wide SMZ. In Alternative B, within 150 feet of a perennial and 75 feet of an intermittent, no timber harvesting would take place. Within a distance of 150 feet to 300 feet from perennial stream channels, and within a distance of 75 feet to 150 feet from intermittent stream channels, ground-based equipment would be excluded, but helicopters may be utilized to remove logs. Alternative C and D have the same SMZ designation, but the no harvest zone is smaller, with 50 feet being the exclusion for both perennial and intermittent streams. Outside of the no harvest zone, only helicopter logging may be used in the remainder of the SMZs in Alternatives C and D.

**Response and FEIS:** Although we received no public comment that specifically addressed this issue, we did receive comments that stated we should give watershed and wildlife first priority, or ecosystem restoration first priority. Internally, between the DEIS and the FEIS, the hydrologist checked with Regional experts currently working on standards for streams in fire areas. It became clear that the concern for larger SMZ widths was to minimize compaction and ensure enough down wood. These concerns are met because we are requiring helicopter-only logging in the outer reaches of the SMZ areas. The IDT feels confident that Alternative D meets resource protection needs. Because the fire area will have a surplus of down wood and snags, it is not believed that down woody material recruitment is a problem. This issue resolution did not change between the DEIS and the FEIS.

**Issue 2:** To what degree should dead and dying trees along the reservoir be removed to provide for safe recreation? It was recognized immediately after the fire that recreationists safety is of prime importance. Since recreationists frequently use the shoreline of the reservoir, it was recognized that a hazard now existed because of the dead and dying trees from the Pendola Fire. Areas along the reservoir edge would either have to be closed for recreationists' use or some hazard tree reduction would need to be done.

**DEIS:** In Alternative A, fire-damaged or killed trees would cause a safety hazard to recreationists using the reservoir shoreline. In Alternatives B and C, hazardous trees within 165 feet of the reservoir are removed, except for trees considered potential eagle perch trees. In Alternative D, all hazardous trees in the 165-foot buffer are removed.

**Response and FEIS:** No comments were received on this issue from the DEIS. Alternative D, removes all hazardous trees in the 165-foot buffer around the reservoir, including the potential eagle perch trees. We consulted with USFWS and this was acceptable to them, as we are leaving many additional snags throughout the burn area that are potential perch trees.

**Issue 3:** Excessive amount of fuel loading left on helicopter ground after restoration activities are completed. Because of the highly erosive soils in the area, we instituted a lower slope break, that of 25 percent, (normal is 30-35 percent) for helicopter logging. With helicopter logging, more slash is left on the ground because equipment cannot move it into piles so readily.

DEIS: Alternative B did not remove all slash within 150 feet of roads. In Alternatives C and D, all slash within 150 feet of roads was piled. In addition, in all alternatives it was proposed to lop and scatter in helicopter units. However, because Alternative B treated less area, more fuels accumulation would remain, and less fuels reduction work would occur.

Response and FEIS: One comment on the DEIS requested that all logging slash be masticated with chippers to reduce rates of spread in future fires. They suggested this treatment would also better protect and reduce disturbed soils, fire intensity, flame length and crowning. This is not feasible, as it is not possible to place equipment for mastication on the steep slopes of helicopter ground. Over 80 percent of the harvest area is proposed for helicopter logging. In addition, we believe that driving equipment on the ground is generally far more compacting than manually scattering slash.

**Issue 4:** To what degree are bald eagles protected? The concern is what level of protection is needed for the resident nesting bald eagles. It was recognized from the beginning that we would be working closely with USFWS to develop mitigations that would provide adequate habitat protection for the eagles. Snags, closures, limited operating periods, roads, and harvest areas were habitat components that were considered.

DEIS: Alternatives B and C maintained characteristic perch trees within a cove that could present a hazard to shoreline users, and maintained most snags within the breeding territory. Alternative D removed the hazardous perch trees in the cove, and removed some additional snags within the breeding territory. In order to meet public safety needs, Alternative D removes a small percentage of potential bald eagle perch trees in the 165-foot reservoir buffer. In all alternatives, limited operating periods to reduce disturbance to nesting eagles would be in force.

Response and FEIS: Between the DEIS and the FEIS, the bald eagles chose a new nest site, as their historic nest burned during the fire. This necessitated a change in the area identified for a limited operating period, and also slightly changed harvest area boundaries. Working closely with USFWS, we carefully considered snag policy, hazard reduction policy, and the closure policies. In addition, outside of the scope of this document, other eagle protection needs and policies were considered. We are committed to protecting the habitat for these nesting eagles, and feel that Alternative D will protect the eagles and maintain the necessary habitat components for their successful nesting.

**Issue 5:** Emphasize wildlife, soils and watershed recovery needs above and before considering commercial salvage timber harvesting. Our purpose and need for action, as stated in Chapter 1 states, “The purpose and need of this project is to speed the recovery of the Pendola Fire area while reducing environmental and economic loss of resources...” (See FEIS, Chapter 1).

DEIS: Alternative B emphasizes soil, watershed and wildlife recovery needs, primarily by staying out of the area north and west of Baker Ranch Road, where the fire mimicked the natural fire regime. Alternative C emphasizes wildlife by retaining more hazardous snags, while meeting watershed and soil needs. Alternative D meets all soil, watershed and wildlife needs. In all alternatives, the salvage harvest most likely would occur in the summer and fall of 2000. This would accelerate the soil and watershed protection measures by increasing the effective soil cover through timber harvest requirements including lopping and scattering slash; tillage of landings, temporary roads, and portions of skid trails; and straw mulching.

Response and FEIS: Public input on the DEIS suggested both that we take a more aggressive approach to the timber harvesting, and that we emphasize wildlife, watershed and soils. In the final Alternatives C and D salvage opportunities look a bit more like Alternative B. North and west of Baker Ranch Road, units were made smaller, and two were dropped. This resulted in a reduction in the number of acres treated in this area, from 484 acres to 47 acres. This will benefit wildlife, and there will be a reduction in Cumulative Watershed Effects (CWEs) because treated acres are reduced. This reduction occurred because there was less mortality than expected, and in response to public comment. See Baker Ranch Road Issue.

**Issue 6.** Select a diversity of snag sizes and species, including hardwoods; don't use only the largest trees for snags. Snags and down logs are important components of wildlife habitat. In the Pendola area, 2600 acres burned, leaving approximately 75% of the area with most understory and overstory vegetation removed. Standing dead trees and remnant skeletons are prevalent. Snags and down wood also create additional fuels hazards, so balancing the amount that is left is an important consideration for wildlife, fuels, and the timber sale. The issue is, how much and what kind of snags should be left? Snags provide foraging and nesting habitat for insect feeding birds, shelter for prey animals, denning, nesting or roosting habitat for larger birds, bats and animals, and hibernation and nesting sites for black bear. Different tree species support different organisms; the way that a snag dies also varies its eventual use, and size affects its persistence.

Under all alternatives, in both DEIS and FEIS, in CASPO select and other strata (generally north of Baker Ranch Road) CASPO guidelines for snags will be met.

DEIS: Alternatives vary in treatment of snags in non-suitable owl habitat. Alternatives B and C keep 5 to 10 snags per acre averaged across the landscape, leaving the largest conifers for snags. In Alternative D, the standard was to leave 5 to 10 snags per acre across the landscape, choosing a range of sizes above 15 inches DBH with good wildlife attributes, with no more than two at the low end of the size range of the stand and no less than two at the high end of the size range of the stand.

It was acknowledged that in all alternatives, too much fuel would remain on the ground after tree boles were removed; Alternative A has the most fuels left, and Alternative D has the least. Alternative A would leave an estimated 127 tons per acre of material

greater than 10 inches in diameter; the other alternatives would leave approximately 115 tons per acre. In Alternative D, on the Garden Valley Peninsula, fuel loadings will be reduced, to approximately 10-30 tons per acre, which is in the acceptable range, because an additional 261 acres are being treated.

Some respondents stated that we have left too much wood and snags in the area, while others wanted us to leave more (8 snags per acre). Those that felt we left too much were concerned about the economic loss and the additional fire hazard that this would cause.

**Response and FEIS:** In this project, snag retention is particularly important to consider because of the damaged ecosystem and the ongoing high fire risk that the Pendola analysis area sustains. California Spotted Owl Environmental Assessment (CASPO) required that 8 snags/ac be left in strata suitable for owls. Although most of the area is no longer suitable for owls due to diminished canopy closure, many other species utilize snags for habitat. Our standard of 5-10 snags/ac, with an intent to maintain at least 8 per acre overall, as averaged across reasonable topographic features, uses Regional direction that gives the IDT flexibility to manage snags according to site-specific conditions (letter to Regional Forester from Jerry Verner, May 4, 1993). It enabled us to consider using snags in already reserved areas to average across the landscape, to consider where snags would be most useful, to use both aggregations and singular snags, and to consider the additional risk of snags along roads and on ridges, both for fuels concerns and public safety.

In both the DEIS and FEIS, alternatives vary in retention of snags in non-suitable owl habitat only. Alternatives B and C recommend the largest snags, while Alternative D provides more flexibility by requiring that two of the largest snags be retained, and sets a minimum size, but it allows for other spatial and quality selection factors to be considered. I believe this is very important to meet our Purpose and Need, to reduce additional fuels, and to help provide for an economic timber sale.

Additionally, Snag Retention Guidelines (see Appendix J) were developed to clarify which snags would be retained. I feel that a good effort was made to balance the need for fuels considerations, economic recovery, and wildlife habitat needs.

**Issue 7:** Do not harvest north of Baker Ranch Road. This area was left more intact and has a Protected Activity Center (PAC), Forest Carnivore Network, and Areas of Late Succession Emphasis (ALSE). The fire burned less intense northwest of Baker Ranch Road. Because these areas have a PAC, fall within a ALSE, and are within the Forest Carnivore Network, these areas should be allowed to recover naturally.

**DEIS:** Alternative B was formulated to respond to this comment from the public, and proposed no work north and west of the Baker Ranch Road. Alternatives D and C proposed that 484 acres north of Baker Ranch Road and west of Baker Ranch be harvested. In Alternatives C and D, none of the PAC acres north and west were proposed for harvest. However, former PAC acres south of the Baker Ranch Road were proposed for harvest because the area sustained a moderate to high intensive fire. None of the

acres within the Spotted Owl Habitat Area (SOHA), which is south and east, were proposed for harvesting.

The May 1, 1998 letter from the Regional Forester stated, "I am suggesting you avoid proposing or offering timber sales within high-quality late succession/old forest as identified in the Sierra Nevada Ecosystem Project (SNEP) Report (Vol. II, Chapter 21, polygons ranked 4 or 5)". Only unit H-26 falls within the LSOG 4, and was proposed for harvesting as it is no longer high quality because of the burn intensity.

Units T-10, H-26, and H-27 all fall within the Tahoe National Forest Carnivore Network. The Carnivore Network is a landscape-level analysis that identified broad areas, within which enough suitable habitat occurs across the landscape, so that these areas are more likely to support marten and fisher than are areas outside of the network. Not all areas within the network are presently suitable for these animals, nor are all areas capable of becoming suitable habitat for these animals. Although fragmenting habitat further is not desired a goal, habitat variability is important because disturbances such as fires, as well as differences in soil types, naturally create openings and a variety of habitat types. These three units were proposed for harvesting because it was felt that the fire created some natural openings, and that there would be more than enough of the down woody material and snags, and an opportunity existed to remove some fire hazard while providing some wood products.

**Response and FEIS:** Alternatives C and D were modified to recognize the less intense fire that occurred north and west of Baker Ranch Road, in response to public comment and further analysis. Only 47 acres will now be harvested in this area. Unit T-10, 105 acres in the DEIS, became two small units in the FEIS listed as T10-1 and T10-2, and will have 22 acres in total harvested. Unit H-27 was dramatically reduced from 182 to 25 acres, and Unit H-29 was eliminated.

As before, no PAC or SOHA or LSOG 4 acres are affected. In my judgment, the harvesting of 47 acres will have little effect on the overall integrity of the Carnivore Network, especially since these remnant acres were intensely burned. This approach is balanced and acknowledges natural resource values, addresses some of the excess fuels in the area, and provides some economic return on dead and dying trees.

**Issue 8:** Maximize timber utilization so that the U.S. is not increasingly dependent on foreign or private timber. The issue is the increasing dependence of the United States on importing timber from other countries, while National Forests are increasingly subject to restrictions that lessen the outputs. The Tahoe National Forest is cutting much less than its sustainable level.

**DEIS:** One of the components of the Purpose and Need is to, "Capture the economic value of potential forest products by salvage logging dead and dying trees before those values are lessened to a point at which it is no longer viable to commercially harvest, while meeting other resource objectives and the objectives within the Forest Plan." Alternative B would harvest the least amount of acres, in response to a lighter burn and

public input, north and west of Baker Ranch Road. It also would not harvest in the SMZs. Alternatives C and D would harvest a small portion of the SMZs by helicopter, and worked north and west of Baker Ranch Road. Alternative D will take more hazard trees along roads and the reservoir buffer, and will accomplish a light removal of small dead and dying trees in the eagle breeding territory.

**Response and FEIS:** We received some public comment to maximize the amount of harvesting, some comment to select Alternative B, some comment to select a no-harvest watershed-restoration-only alternative, and also some support for Alternative D. The IDT reviewed Alternative D on the ground. It became clear that there was not a lot of mortality north and west of Baker Ranch Road. A significant amount of acreage was dropped for the modified Alternative D. Hazard tree reduction along roads, the reservoir buffer, and the light removal of dead and dying trees is still in Alternative D. Both the IDT and I believe that the project accomplishes the purpose and need of capturing the economic value of potential forest products, while meeting other resource objectives.

## **B. OTHER DECISION FACTORS**

In addition to considering how the alternatives responded to the major issues and concerns, I also considered the public response to the DEIS and the Purpose and Need for the projects.

The Purpose and Need of the project is “to speed the recovery of the Pendola Fire area while reducing environmental and economic loss of resources....” This includes, “Capture the economic value of potential forest products by salvage logging dead and dying trees before those values are lessened to a point at which it is no longer viable to commercially harvest, while meeting other resource objectives and the objectives within the Forest Plan.” While using an ecosystem management approach within the Pendola analysis area, I believe that it is important to quickly return the burned forest to the desired vegetation condition, that is, a healthy natural mixed conifer plant community with a variety of age classes and 30 to 70 percent canopy closure. This desired condition includes maintaining all hardwoods needed for wildlife habitat.

The removal of dead trees is the first step towards achieving the desired conditions for vegetation and fuel loadings; reforestation will result in more biodiversity than no action. All the conifers species that existed prior to the fire will be planted in a proportion that closely reflects the presumed species mix in pre-settlement times. The harvesting and subsequent planting and release of new seedlings will result in fewer shrubs in the future, but all existing species will be retained. No attempt will be made to eliminate any particular species of native vegetation.

By planting, conifers become fully established much quicker. If natural conditions were left to develop, the conifers would take 70-80 years before they over-topped the brush. We expect the planted conifers will over-top the brush in 10-15 years. Under this regime, a forested community will be again established within 70 to 80 years; if left to natural succession, the trees would just begin to over-top the brush in that same time period. In

this fertile ground, large trees and closed canopies can be achieved in 70-100 years, with active management.

I judge that Alternative D in the FEIS best meets the Purpose and Need of speeding the recovery of the Pendola Fire analysis area, while reducing environmental and economic loss of resources. Alternatives B and C are incrementally better in meeting the Purpose and Need than Alternative A. Alternative B leaves wide swaths of SMZs untouched and unplanted. Both B and C leave fire-killed perch trees, do not remove hazard trees along Garden Valley Road within the eagle breeding area, do no work within the eagle breeding area, and leave only the largest snags. This hands-off approach, I feel, is unwarranted as effects to eagles have been mitigated to my satisfaction and to the USFWS.

By quickly removing the timber, it will be possible to save the value of the trees and have an economic sale, one that returns money to the U.S. Treasury. Additional economic benefits are accrued for employment and school and road funds for the local counties. Deterioration, and subsequent devaluation of the timber, becomes significant if the timber is not begun to be removed in the summer and fall of 2000.

Alternative D also makes the best progress in dealing with the excessive fuels condition that will be present in the Pendola area five to 100 years from now. If the area is left untreated as in Alternative A, most of the dead trees would fall to the ground, thus creating excessive fuel loading. The overall fire hazard after year 20 would range from high to extreme, with a dense mosaic of impenetrable shrubs, many mature and decadent, with a high dead component. Alternatives B and C progressively remove more dead fuel, but have limitations. In Alternative D, 13 percent of the project area would have a desirable fuel loading; the Garden Point Fuel Reduction Zone, a key firefighting strategic locale, will have a fuel loading less than 30 tons per acre. If Alternative A is selected, none of the project area would have a desirable fuel loading.

I would have liked to reduce the fuels more in the Pendola analysis area. Other resource needs, especially the need to retain snags and down logs, and the lack of market for hardwoods, did not make this feasible. The Tahoe National Forest is committed to make the Pendola area one of the highest priorities on the Downieville District for future fuels reduction funding. Realistically, it is important to realize that air quality concerns and limited operating periods for sensitive species will continue to make fuels reduction in this area challenging. Unfortunately, this area is a high fire hazard area because of the elevation and good soils, which grows dense, flammable vegetation in a very short time. Fire suppression and development in the urban interface have disrupted natural fire regimes in the Sierra Nevada. Because of the continued development of housing and small "ranches" in this area, it is also unlikely to change our fire-fighting strategy.

I do think we made as much progress as possible in Alternative D, and need to continue to view this as a high priority for fuels reduction funding. I also plan to continue to seek innovative partnerships and funding sources to deal with this area.

Alternative D will remove hazard trees along the reservoir for recreationists. It will most quickly improve visual quality, as seen from the reservoir, to a pre-fire state.

Thus, for all these reasons, I have selected Alternative D in the FEIS as the management approach for the Pendola Fire Restoration project.

Herbicides are not planned for use to reduce competing vegetation nor was their use analyzed in the FEIS. If herbicides are proposed in the future, such use will be analyzed on a case-by-case basis and will be subject to the National Environmental Policy Act, with opportunity for the public and regulatory agencies to participate throughout.

Another decision concerning bald eagle habitat protection was made separately from this document under other authorities. To protect the eagle nest site, Yuba County Water Agency will seasonally close a portion of Tractor Cove; this is authorized under the Bullards Bar Federal Energy Regulatory Commission (FERC) License 2246, revised Exhibit R (Recreation Plan), adopted on August 19, 1993, and was completed in coordination with Yuba County Water Agency and FERC.

No decision is being made in this document regarding replacement acres for the part of the PAC that burned. A separate, later analysis is planned to establish replacement PAC acres. The areas proposed for harvest have been evaluated for PAC replacement, but were not found suitable.

## **VI. MITIGATION MEASURES AND MONITORING REQUIREMENTS**

The mitigation measures included in Alternative D in the FEIS are integral elements of the project. Resource protection measures have been incorporated as part of project design and, consequently, are not considered mitigations but are committed actions to be implemented continuously during the life of the project. Many of these actions are in the Timber Sale Contract (TSC); see Appendix H for a list of Mitigation Measures, Management Requirements, and Best Management Practices (BMPs), which are identified to reduce soil and water effects and to identify the related contract clause to be used in the TSC. I am fully committed to ensuring their implementation.

Based on our experiences on the Downieville Ranger District and elsewhere on the Tahoe National Forest, as well as on similar sites within the Sierra Nevada ecosystem, it is expected that the mitigation measures will be effective in protecting the environment and preventing adverse effects. The IDT discussed what was learned in other fire salvage projects, and many of our mitigations and the actual development of the alternatives was influenced by past experiences.

Projects will be monitored to ensure that all Forest standards and guidelines and project requirements are met; this includes monitoring the BMPs to ensure water quality criteria are met. If monitoring reveals that either a standard or a project requirement is not being

met, or that a BMP is found to be ineffective, corrective measures will be taken immediately to remedy the situation. Measures may include suspending the project, within the confines of existing contracts, until the problem can be solved, and corrections, adjustments, or modifications made. Certain measures in the Monitoring Plan are specifically designed to provide this feedback during on-going operations.

In addition to implementation monitoring, the effectiveness of the proposed activities and the management constraints will be monitored. Appendix K lists specific monitoring projects, responsibilities, and funding sources.

## **VII. FINDINGS REQUIRED BY OTHER LAWS**

### **National Forest Management Act**

All management practices and activities of the selected Alternative D are consistent with the management direction, including standards and guidelines, in the Land and Resource Management Plan for the Tahoe National Forest (June 14, 1990), as amended, and its provisions, which were developed in accordance with and conform to requirements of the National Forest Management Act of 1976, 17 USC 1604(i) and 36 CFR 219.10 (e).

### **National Historic Preservation Act**

Heritage resources will be managed consistent with the provisions of the Programmatic Agreement between the Forest Service, the State Historic Preservation Officer, and the National Advisory Council on Historic Preservation, and thereby will comply with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR 800, and the Tahoe National Forest Plan.

### **Endangered Species Act**

Coordination with the U.S. Fish and Wildlife Service is required for all threatened, endangered, and proposed species. A listing has been received from the U.S. Fish and Wildlife Service and is found in the Biological Assessment, Appendix E. Analysis was completed for four species: bald eagle, the California red-legged frog, the Valley elderberry longhorn beetle, and the Lahontan cutthroat trout. The Valley elderberry longhorn beetle is not found on the Tahoe National Forest, and the Lahontan cutthroat trout is not found on the Downieville Ranger District. The findings for bald eagle and California red-legged frog were “may effect, but is not likely to adversely affect” for the Preferred Alternative. Consultation under Section 7 of the Endangered Species Act of 1973, as amended, and implementing regulations (19 U.S.C. 1536C, 50 CFR 402.12(f) and 402.14C)) has been underway since December 1999, and will continue through the life of the project.

For Forest Service sensitive species, the determination for mountain yellow-legged frog, great basin-rams horn snail, Lahontan Lake Tuie Chub, and the hardhead “will not be

affected by implementation of Alternative D.” The determination for California spotted owl, the northern goshawk, the Pacific fisher, the California wolverine, the Pallid bat, the Townsend’s big-eared bat or the western red bat, is “Alternative D may affect, but is not likely to result in a trend toward Federal listing or loss of viability.” The Biological Evaluation is found in Appendix D.

Impacts to threatened, endangered, proposed, sensitive, and watch-list plant species, will be minimized or eliminated by following the management requirements stated in Appendix H and the Biological Evaluation in Appendix F.

### **Clean Water Act**

The Cumulative Watershed Effects analysis was completed for the burned and adjoining areas. See Chapter 3 of the FEIS. Water quality should not be adversely affected with implementation of resource protection and mitigation measures incorporated into all of the project designs, including Best Management Practices, identified in Appendix H of the FEIS. The practices specified are expected to be fully effective in maintaining the identified beneficial uses.

### **Clean Air Act**

This project conforms to the Clean Air Act and complies with the General Conformity Rule (48 Federal Register 63214) proclaimed by the Environmental Protection Agency. All permits and requirements of the California Air Resources Board and the Feather River Air Quality Management District will be met.

### **Administrative Review**

This decision is subject to appeal pursuant to the Forest Service regulations at 36 CFR 215.7. Any written appeal of this decision must be fully consistent with 36 CFR 215.14, “Content of an Appeal,” and must be postmarked or received by the Appeal Deciding Officer, Regional Forester Bradley Powell, USDA Forest Service, 1323 Club Drive, Vallejo, CA 94592 within 45 days following the date of publication of the legal notice of this decision in **The Union** newspaper in Grass Valley-Nevada City, California.

It is the appellant’s responsibility to provide sufficient written evidence and rationale to show why the Responsible Official’s decision should be remanded or reversed. An appeal must meet the following requirements: 1) That the document is an appeal filed pursuant to 36 CFR 215.2; 2) The appellant’s name, address and telephone number; 3) Identify the decision being appealed (including the title of this document, its date, and the name and title of the Responsible Official who signed it; 4) Identify the specific change(s) in the decision that appellant seeks or the portion of the decision to which the appellant objects; 5) State how the Responsible Official’s decision fails to consider comments previously provided, either before or during the 30-day comment period and, if applicable, how the appellant believes the decision violates the law, regulation, or policy. Your appeal can be dismissed if it fails to meet the minimum requirements of 36 CFR

215.14 to such an extent that the Appeal Deciding Officer lacks adequate information on which to base a decision.

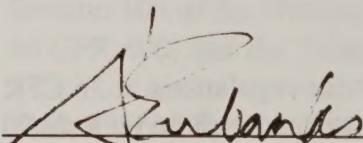
If an appeal is not received on this project, the project can be implemented 5 days after the close of the 45-day appeal period. If an appeal is received, this project can be implemented 15 days after appeal disposition.

**Contact Person:**

This Final Environmental Impact Statement is available for review at the North Yuba Ranger Station and at the Tahoe National Forest headquarters. For further information please contact:

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STEVEN T. EUBANKS  
Forest Supervisor  
Responsible Official

5/2/00  
Date

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